

Chapter 5 - Indirect Taxes, Subsidies & Price Controls

The effect of an indirect tax on the demand for / supply of a product

Indirect tax is one imposed upon expenditure.

↳ on the selling price of the product.

↳ raises the firm's costs & shifts the supply curve upwards by the amount of the tax.

⇒ less product supplied at every price.

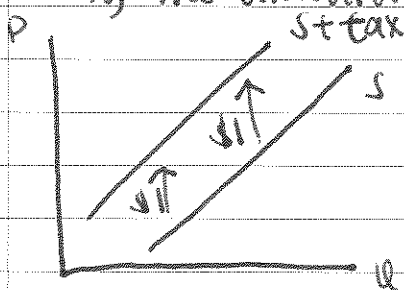
TWO TYPES OF INDIRECT TAXES

1. Specific tax

↳ specific / fixed amount of tax imposed on a product.

eg. tax of \$1 per unit.

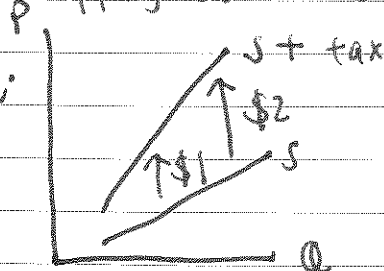
↳ shifts supply curve vertically upwards ↑ by the amount of taxes.



- specific tax
- S = original
- S+tax = curve after tax is imposed.

2. Percentage tax [ad valorem tax].

↳ tax is a percentage of the selling price so the supply curve shifts.



- tax increases as price of product increases
- gap between 2 curves ⇒ percentage tax.

Indirect tax on a product

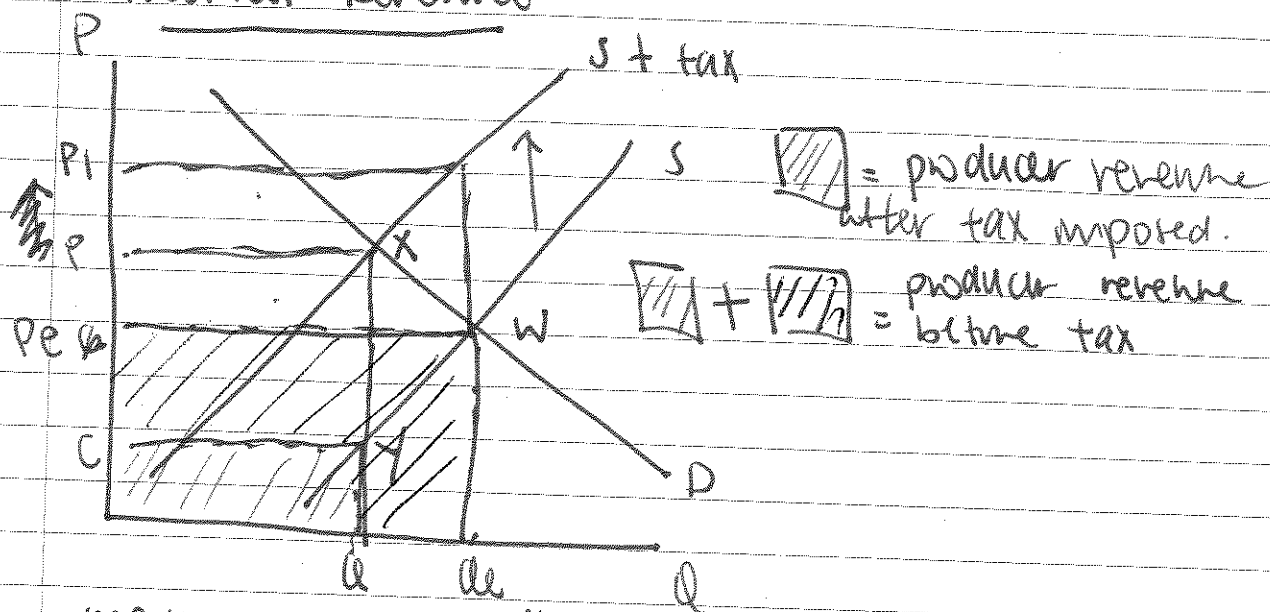
↳ effect on consumers

↳ effect on producers

↳ effect on government

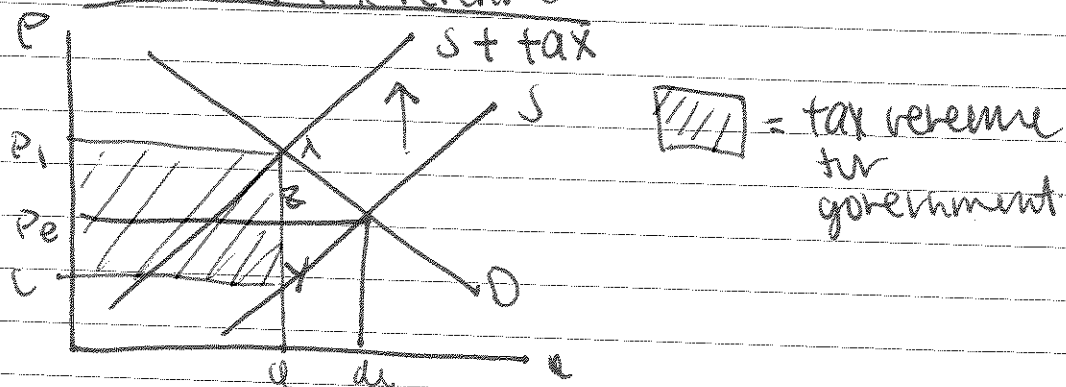
} effect on the market.

Producer Revenue



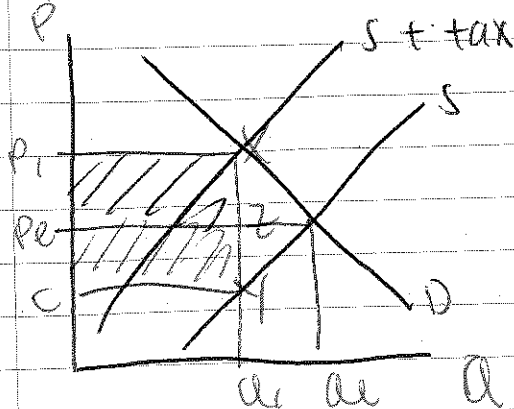
- market is in equilibrium $\rightarrow Q_e$ supplied, demand at P_e .
- After tax XY per unit imposed, supply shifts \uparrow
- producers raise price so consumers pay tax tw .
- excess supply at P_1 , so price must fall to reach equilibrium.
- w falls to $P = Q_e$ supplied & demanded

Government tax revenue



- government receives revenue = $(P_1 - P_e) \times Q_1$
- market falls in size from producing Q_e units to producing Q_1 units
- firms employ less people

The tax burden



= tax burden for producers

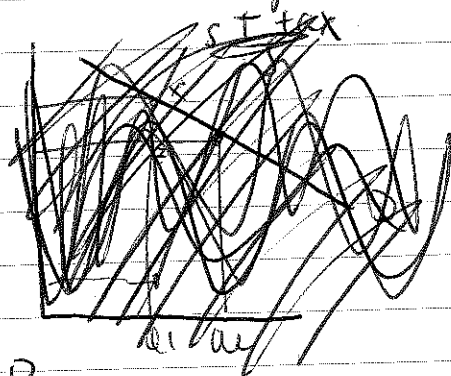
= tax burden for consumers

- indirect tax shared with producers & consumers.

↳ pretty evenly.

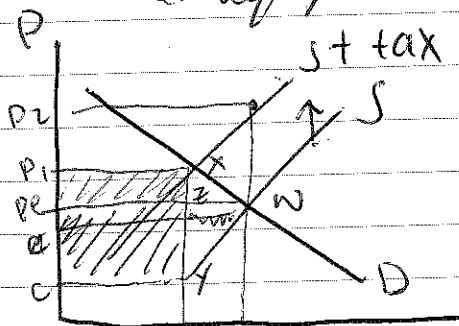
↳ varies with relative values of PED & supply.

↳ so does government revenue & the effect on market size.



Imposition of a specific tax on a product where PED is greater than PES.

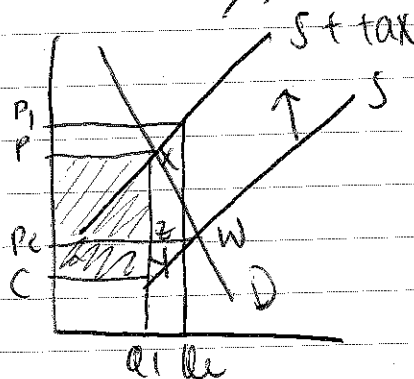
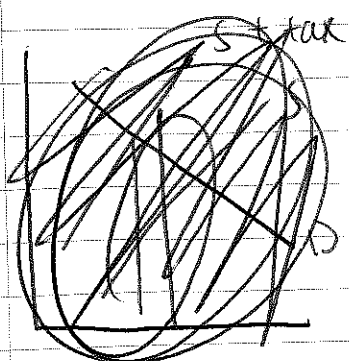
- product is very elastic → many consumers would stop buying the product if the price was raised.
- more burden for producers.



= tax burden for consumers

= tax burden for producers

Imposition of a specific tax on a product where PED is less than PES.



= tax burden for consumers

= tax burden for producers

- PED is inelastic
- PED is elastic

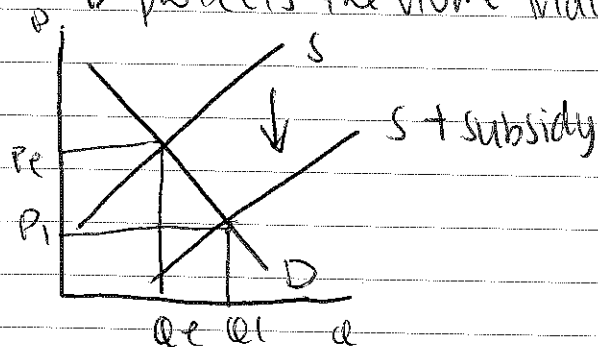
- * $PED = PES$ for a product, the burden of any tax imposed will be shared equally between consumers & producers.
- * $PED > PES$ for a product, burden imposed greater on producers than consumers.
- * $PED < PES$ for a product, burden of tax imposed greater on consumers than producers.

The effect of a subsidy on the demand for, & supply of a product

* **Subsidy** = an ~~outp~~ amount of money paid by the government to a firm, per unit of output.

3 Reasons why government gives subsidy to a product.

1. lower the price of essential goods
 ↳ eg. milk = increase consumption.
2. guarantee the supply of products that the government think are necessary for the economy.
 ↳ eg. basic food supply / power source (coal)
3. to enable producers to compete with overseas trade,
 ↳ protects the home industry.



- price paid by consumers falls P_e to P_1
 - effect on a supply curve of a specific subsidy.

- * subsidy on a product = supply shift downwards by the amount of the subsidy.
 ↳ reduces costs of production for the firm.

- Things to be considered when the government grants a subsidy
- opportunity cost of government spending on the subsidy in terms of other alternative government spending projects.
 - subsidy = inefficient.
 - ↳ firms compete with foreign products in a "free market".

PRICE CONTROLS.

Maximum price controls. (PRICE CEILING)

- ↳ government sets a maximum price, below the equilibrium price.
- ↳ prevents producers from raising the price above it.
- ↳ protects consumers.
- ↳ imposed in markets where the product is a necessity and/or a merit good.
- (eg. government set maximum prices in agricultural and food market)
- ↳ maximum prices = excess demand.
- ↳ shortage = emergence of black market.

reach equilibrium at maximum price

to fix: - government shifts demand curve to the left

- ↳ limits consumption.

- ↳ goes against imposing maximum price.

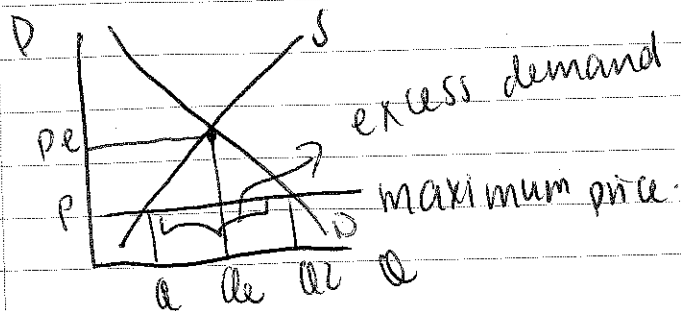
- shift supply curve to the right.

- ↳ more being supplied & demanded.

- subsidies to firms (+ to produce more).

- government start producing product.

- if they stored the product, they can release some of the stocks (stored goods) onto the market.



Minimum (high) price controls - (PRICE FLOOR)

↳ government sets a minimum price above the equilibrium price

↳ prevents producers from reducing price below it.

minimum prices are set for 2 reasons

1. to attempt to raise income for producers of goods and services that the government thinks are important.

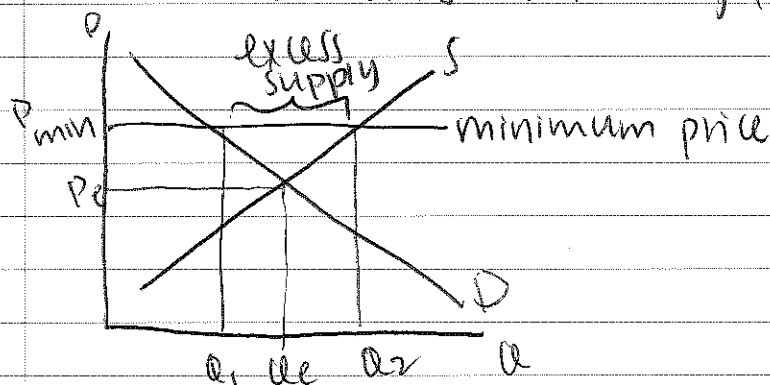
→ eg. agricultural products.

→ ~~raise price~~

→ prices aren't stable ~~fluctuate~~ [fluctuate] / foreign competition.

2. protect workers by setting a minimum wage.

→ ensures workers earn enough money.



* minimum prices = excess supply = problems.

government: ↳ to fix: - eliminate ~~excess supply~~ ~~the~~ ~~a~~ ~~lower~~ ~~price~~.

↳ buying up the surplus products

↳ shifts demand curve to the right = new equilibrium.

↳ store / sell surplus abroad.

MAINTAIN minimum price

1. ~~producers~~ limited by quotas (restricts supply)

↳ keeps price at P_{min}

= only a limited number of producers receive it.

2. increase demand for the product

↳ advertising or restricting supply of the product

→ increases demand for domestic products